human BMP-2 in that the first twelve amino acids, which are considered responsible for the strong heparin binding of BMP-2, are replaced by the first thirteen amino acids of human interleukin-2. This genetically altered BMP-2 analog was recombinantly expressed in *E. coli*. EHBMP-2 reveals a negligible affinity to heparin and a higher biological activity in various cell cultures, i.e. *in vitro*. In comparing the *in vivo* activity of the variant with that of natural BMP-2, it was shown that in mouse at BMP-2 concentrations starting from 4 μg a heterotopic bone induction was produced in nearly all samples, whereas it took an amount of 40 μg of EHBMP-2 to achieve the same effect. Furthermore, it was found that the resulting extent of new bone formation at the same protein concentrations was significantly greater in natural BMP-2 than its BMP analog, EHBMP-2.

Please replace the paragraph beginning on page 23, line 15, with the following replacement paragraph:

Distribution of polypeptide variants within the matrix may or may not be homogenous, but a homogenous distribution would be preferable. The distribution of polypeptide variants may be advantageously configured, depending on the size of the defect or the duration of the healing process. The polypeptide variant concentration within the carrier should range from about 100 $\mu g/cm^3$ to about 2 mg/cm^3, preferably from 250 $\mu g/cm^3$ to 750 $\mu g/cm^3$, and particularly preferably from 450 $\mu g/cm^3$ to 550 $\mu g/cm^3$. As a rule, a concentration of about 500 $\mu g/cm^3$ is used.

Please replace the paragraph beginning on page 24, line 15, with the following replacement paragraph:

Fig. 2 shows the picture of a Coomassie Blue-stained SDS polyacrylamide gel after separation of variants T3 and T4 as expressed in *E. coli* and then purified, as well as of BMP-2 and EHBMP-2 in oxidized form (above) and reduced form (below). On the left are the molecular weight standards (15, 20, 30, 35, 68, and 94 kD). The gels